Department of Energy

Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
Springdale, Ohio 45246
(513) 648-3155

MAY 10 2005

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0236-05

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT EXCAVATION PLAN FOR THE AREA 6 FORMER PRODUCTION AREA

References: 1) Letter, J. Saric to J. Reising, "Area 6 Excavation Plan," dated April 13, 2005

2) Letter, T. Schneider to W. Taylor, "Comments - Excavation Plan for the A6 FPA," dated April 28, 2005

Enclosed for your approval are responses to Ohio Environmental Protection Agency comments on the draft Excavation Plan for the Area 6 Former Production Area. As noted in Reference 1, the U.S. Environmental Protection Agency has already approved this plan.

If you have any questions or require additional information, please contact Johnny Reising at (513) 648-3139.

Sincerely,

William J. Taylor
Director

FCP:Reising

Enclosure: As Stated

cc w/enclosure:
D. Pfister, OH/FCP
J. Reising, OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SR-6J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:
K. Alkema, Fluor Fernald, Inc./MS01
J. Chiou, Fluor Fernald, Inc./MS64
F. Johnston, Fluor Fernald, Inc./MS52-5
C. Murphy, Fluor Fernald, Inc./MS77
ECDC, Fluor Fernald, Inc./MS52-7

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE DRAFT EXCAVATION PLAN FOR THE AREA 6 FORMER PRODUCTION AREA

FERNALD CLOSURE PROJECT
FERNALD, OHIO

MAY 2005

U.S. DEPARTMENT OF ENERGY

RESPONSES TO OHIO ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE EXCAVATION PLAN FOR THE AREA 6 FORMER PRODUCTION AREA (20602-PL-0001, Revision A)

COMMENTS

1. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.3.3 Pg #: 1-6 Line #: 2-3 Code: C
Original Comment #: 1
Comment: "Permanent seeding will be placed over the remediated area once precertification of each workable area has been performed". This is not acceptable. Permanent seeding is to take place after certification. Please correct.

   Response: Agree. Seeding will be performed after certification sampling results are back and show that all the certification criteria are met, unless otherwise approved by the agencies. Area 6 Former Production Area (FPA) Restoration Design (scheduled to be submitted to the agencies in June 2005) will address the specifics about permanent seeding.

   Action: The last sentence of this section will be removed from text.

2. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 1.3.6 Pg #: 1-6 Line #: 17 Code: C
Original Comment #: 2
Comment: The reference should be made to "the latest/final revision of the NRRDP".

   Response: Agreed.

   Action: The text will be corrected to reference "the latest/final revision of the NRRDP".

3. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 1.4.1 Pg #: 1-6 Line #: 30-32 Code: C
Original Comment #: 3
Comment: It is stated in sentences 30-32 that water collected from the excavation area will be pumped to a "newly constructed sedimentation basin." The document shows a proposed basin in Appendix B - is this the one being discussed? It is not mentioned within the text or referenced to Appendix B. In addition, no details are provided as to when this basin was/will be constructed. Provide the necessary information regarding the new basin.

   Response: The statement in this portion of the text is incorrect, referring to an earlier plan for dewatering the excavation underneath the Waste Pits. However, the remediation of soil underneath the Waste Pits is not included in this plan (see Excavation Plan for Area 6 Waste Pits and General Area, submitted to the agencies for review on April 25, 2005). The detention basin as developed in Appendix B will be located in the footprint of the eastern water tower (20D). Since this document was submitted for review, the Converted Advanced Waste Water Treatment (CAWWT) Facility has been completed and is operational. Therefore, references to AWWT Phase I and II treatment need to be removed from the text.

   Action: The text in Section 1.4.1 will be revised as follows:

   "...no modification to the permit is required. Water collected within the excavation area will be pumped or drained into the site storm water collection system for discharge into the Storm Water Retention Basin (SWRB) for subsequent Converted AWWT (CAWWT) treatment. Water from the eastern portion of the excavation area will first be pumped or drained to a

new detention basin located in the footprint of the eastern water tower (20D) prior to being discharged to the SWRB for CAWWT treatment. Compliance with the existing permit will be demonstrated through the effective implementation of the FCP Storm Water Pollution Prevention Plan (SWPPP)."

4. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 1.4.1 Pg #: 1-6 to 1-7 Line #: NA Code: C
Original Comment #: 4
Comment: This section only incidentally mentions the CAWWT. The general concept portrayed is that the current treatment systems will continue to be available during the remediation of Area 6 (e.g., AWWT Phase II, SWRB). More specific information needs to be presented as to how water handling will occur in absence of the existing treatment systems (e.g., AWWT Phase II, SWRB) and with only the CAWWT.

Response: Section 3.3.5 (Site Storm Water Treatment Capacity) discusses the site's ability to treat surface water using AWWT and CAWWT treatment systems. Since this document was submitted to the agencies for review, the CAWWT treatment system has become operational, doing away with the AWWT Phase I and II treatments. As such the text in Section 3.3.5 needs to be revised based on CAWWT treatment of surface water.

Action: The text in Section 1.4.1 will be modified in accordance with the Response to Comment No. 3. In addition, the text in Section 3.3.5 will be revised based on CAWWT treatment of surface water.

5. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 1.4.2 Pg #: 1-7 Line #: 14-17 Code: E
Original Comment #: 5
Comment: Remove either "approval of" or "has been reviewed and approved".

Response: Agreed.

Action: The sentence will be revised to delete "has been reviewed and approved".

6. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-7 Line #: 4-13 Code: C
Original Comment #: 6
Comment: The bounding and excavation approach described here does not follow SEP nor does conducting a "partial excavation," shifting it to another area and once sampling results are back continue to excavate at a later date. This is unacceptable to Ohio EPA. Physical sample results are required to bound an area, therefore without bounding results this excavation and delineation of this small section should be included in the Area 7 and not Area 6.

Response: Our goal is to excavate and remediate an area as soon as it becomes available. For this particular area, excavation at this time will allow completion of the MDC-3A and MDC-4A excavations just east of this area. Conducting 'partial excavations' have also been presented and approved by the agencies in several Implementation Plans that have been submitted for the past several years. For example, Areas 3B/4B/5 described a modeled plume that extended outside of the Area 4B defined area and into the AWWT area. For sloping issues related to the depth of excavation, this plume was designed to be partially excavated under the Area 3B/4B/5 Implementation Plan and to be completed with a future submittal of an Area 7 Implementation Plan. Additionally, the northern and eastern boundary of the Area 3A designed area showed contamination extending into the Area 6 footprint that was planned to be captured with the adjacent Implementation Plans.

The area discussed in this Excavation Plan that is south of the WPRAP Trailer Complex represents only a small, shared border where the contamination may extend into Area 7 and/or the Lime Sludge Pond footprint. The boundary line between areas must be drawn at a logical breakpoint. Otherwise, few designs (if any) could be completed independently of their surrounding areas since the contamination does not follow distinct area boundaries. As always, all contaminated media will be either captured within one or multiple designs and excavated, or chased where necessary as identified during the standard excavation control process to remove all materials that are above their respective final remediation levels (FRLs).

Action: None.

7. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-8 Line #: 15-37 Code: C
Original Comment #: 7

Comment: These two sections describe areas where four historical above-FRL samples are located. Additional samples were not taken due to debris above the locations. These locations need to be captured in this design for excavation. It is unacceptable to plan future sampling for delineation after the Excavation Plan has been submitted. As stated in the SEP, "All area-specific information (e.g., RI/FS and additional predesign investigation data) required to delineate excavation area and conduct soil remediation...will be presented".

Response: During the design of this area, it was not feasible to access these locations for confirmation sampling due to the large debris stockpile. Advancing the excavation another 10 feet in the design based on a single above-FRL interval in boring 1505 without confirmation was determined unreasonable. Instead, it was determined that the excavation would be designed based on the three-dimensional model, which did not capture this isolated interval, and then perform the necessary confirmation borings during excavation control.

However, upon further review of the Remedial Investigation/Feasibility Study (RI/FS) data from boring 1505, it was revealed that the database was populated with an incorrect surface elevation of 583.6 feet above mean sea level (MSL) for this boring. The correct elevation is 588.6 feet. Based on the erroneous elevation, the depth of above-FRL conditions was incorrectly projected at 572.6 feet above MSL when in fact the true above-FRL condition exists only to 577.6 feet above MSL. Therefore, extending the design by a few feet is not unreasonable. The design grade will be adjusted to capture the above-FRL conditions shown in boring 1505, which will also capture the other borings mentioned in this section. Attached is a revised scatter plot showing the true depth of above-FRL uranium compared to the design grade. Once the design is modified to capture all above-FRL contamination, the scatter plots will be corrected and submitted with the final revision of this plan.

Action: The excavation design will be adjusted to capture the additional excavation depth for boring 1505. The scatter plot, Figure 2-31, will be updated with the correct MSL for boring 1505 and the adjusted excavation depths for borings 1281, 12531, 11230, and 1505. The updates to the scatter plot and the excavation drawing, Grid 1, will be submitted in the final Excavation Plan.

8. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 2.3.2 Pg #: 2-8 Line #: 41-44 Code: C
Original Comment #: 8
Comment: Boring SP-3 has an above-FRL sample result, but is not being included for excavation under this plan. Please present a justification for not capturing this arsenic point.

Response: This boring contained a result for arsenic (17.3 mg/kg), which is less than two times the FRL (arsenic FRL = 12 mg/kg) and often can be seen in the subsurface elsewhere on site. The interval where this result was collected is at 548 feet above MSL. The designed excavation to capture uranium in this area is at 587 feet above MSL, as no other contamination is present below elevation 587. DOE feels that it is unreasonable to advance the excavation another 40 feet in order to capture this single above-FRL condition. Furthermore, the sideslope of a 40-foot excavation at this location would extend into the On-Site Disposal Facility footprint.

Action: This paragraph will be rewritten to emphasize the significance of advancing the excavation to capture this arsenic condition, thus the decision to exclude this interval from the design.

9. Commenting Organization: Ohio EPA Commentor: DSW
Section #: 3.3 Pg #: NA Line #: NA Code: C
Original Comment #: 9
Comment: Several references are made in this section to sending water for treatment in the SWRB. The SWRB is scheduled for removal in November. What contingency is planned for water handling if the SWRB is no longer available and remediation of this project is not yet complete? Although the basins within the excavation area are designed to hold a 10-year storm event, historically the on-site holding capacity for this design has been exceeded due to the nature of rainfall patterns here (several rain events in succession). Once the SWRB is removed, some contingency needs to be in place for dealing with significant rain events.

Response: The intent is to complete Area 6 FPA excavation prior to removal of the SWRB in November 2005. The SWRB will not be excavated until Area 6 excavation is completed. In the unlikely scenario that excavation activities point to the need for an alternative to the SWRB, one will be developed at that time pending review and approval of the agencies.

Action: None.

10. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.4 Pg #: 3-5 Line #: 34-36 Code: C
Original Comment #: 10
Comment: This section mentioned parts along the perimeter of Area 3A and 4A will be excavated during these A6 FPA activities. Please provide more details on these areas to be excavated.

Response: In the Area 6 FPA, as with other remediation efforts, remediation includes the excavation and remediation of the uncertified perimeter of adjacent areas that have undergone prior remediation efforts. Small areas along the perimeter of Areas 3A and 4A to be remediated during A6 FPA are those areas where safe slopes or run-on controls were constructed between Area 3A and 4A certification limits and the Area 6 boundary. These areas contain contamination and underground utilities below Area 3A and 4A design grade, as well as previously constructed isolation trenches that require remediation.

Action: Section 3 will be revised to provide more detail regarding remediation of the uncertified perimeter of Areas 3A and 4A.

11. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.4.3 Pg #: 3-7 Line #: 19-20 Code: C
Original Comment #: 11
Comment: Are these isolation trenches for Area 3A and 4A the areas mentioned in the previous comment? More details are needed on Area 3A and 4A activities under this scope of work.

Response: Area 3A and 4A isolation trenches are only a portion of the scope of excavation activities along the perimeter of Area 3A and 4A.

Action: See Action prescribed in Response to Comment No. 10.

12. Commenting Organization: Ohio EPA Commentor: OFFO
Section #: 3.5 Pg #: 3-8 Line #: 29-37 Code: C
Original Comment #: 12
Comment: This section does not mention any sampling of the overburden soil that is to be stockpiled. The only mention of sampling is at the bottom of the excavation. It says that if the bottom of the excavation is sampled and determined clean, the overburden will be placed into the excavation. It is unacceptable to sample the bottom of an excavation and based on those results call the top clean.

Response: Agree. Temporary stockpiles of removed overburden will not be used as fill within the excavation unless the overburden soil is sampled prior to excavation to determine if the soil is below-FRL based on an approved sampling plan.

Action: Text in Section 3.5 will be revised accordingly.

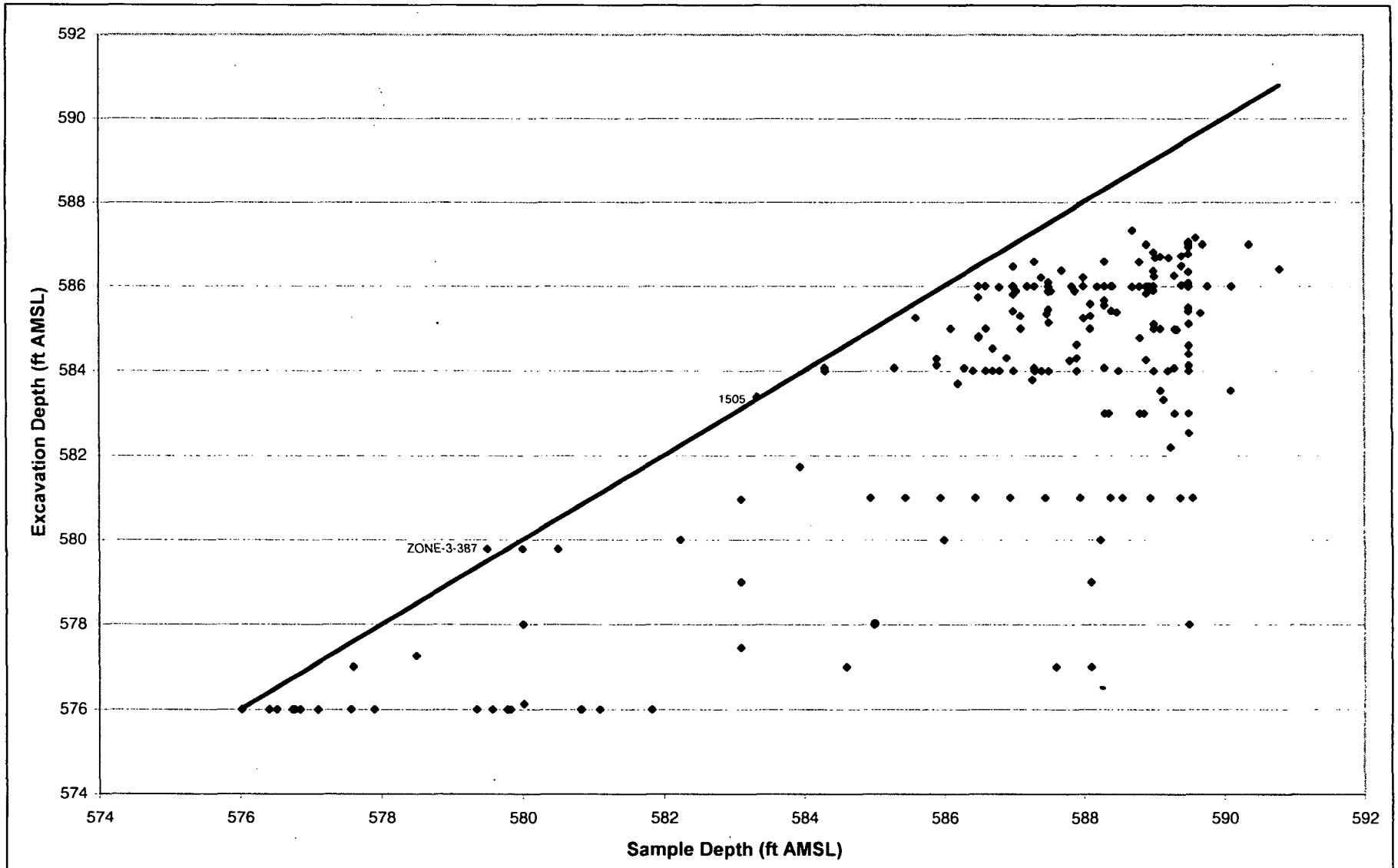

FIGURE 2-31. EXCAVATION DEPTH VERSUS SAMPLE DEPTH FOR TOTAL URANIUM IN AREA 6